

09/212915

ABSTRACT OF THE DISCLOSURE

5 A process for fabricating a semiconductor device having a buried layer comprises the steps of implanting an impurity ion into where the buried layer to be formed in a substrate, providing the substrate inside a reactor furnace, preparing a nonoxidizing atmosphere inside of the reactor furnace, annealing the substrate to activate and diffuse the implanted impurity ion region while increasing inside temperature of the reactor furnace up to a first
10 temperature, and shifting the inside temperature of the reactor furnace from the first temperature to a second temperature in which a epitaxial crystal starts to grow and introducing a epitaxial growth gas into the reactor furnace to grow an epitaxial layer on a surface of the substrate.